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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/092,335	03/06/2002	George Robert Hulse	FMO P-3127-2	8988

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EXAMINER

SONG, SARAH U

ART UNIT PAPER NUMBER

2874

DATE MAILED: 07/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/092,335

Applicant(s)

HULSE ET AL.

Examiner

Sarah Song

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 March 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2. 6) ☐ Other: .

**DETAILED ACTION**

***Information Disclosure Statement***

1. The prior art documents submitted by the applicant in the Information Disclosure Statement filed on March 6, 2002 have all been considered and made of record (note the attached copy of form PTO-1449).

***Drawings***

2. This application has been filed with four (4) sheets of drawings, which have been approved by the Examiner.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Windross et al. (U.S. Patent 5,295,047) in view of Birdseye (U.S. Patent 2,135,480 provided by the Applicant). Windross et al. discloses an illuminating waveguide 10 comprising:

-an elongated solid light transmitting body 16 made of acrylic (see column 4, line 1)

having:

-a first portion 20 extending lengthwise along said body and having a light transmissive surface, and

-a second portion 18 extending lengthwise along said body;

- wherein the first portion has a first conic cross-sectional shape (semi-circular) and the second portion has a second triangular cross-sectional shape which directs internally-reflected light towards said first portion for transmission out of said body through said light-transmissive surface, said second cross-sectional shape being different in shape than said first cross-sectional shape.

Windross et al. does not specifically disclose the second portion to have a conic or parabolic cross-sectional shape.

Birdseye discloses an illuminating device comprising an elongated body having a first conic portion 13, and a second conic or parabolic portion 12 comprising a reflective coating 14. The parabolic portion 12 provides a concentrated beam of parallel rays.

Both Windross et al. and Birdseye disclose line-of-light illuminating devices. Therefore one of ordinary skill in the art would have found it obvious to combine the disclosures of Windross et al. and Birdseye. More specifically, one of ordinary skill in the art would have found it obvious to substitute the parabolic second section of Birdseye for the triangular second section of Windross et al. Since the geometry disclosed by Birdseye would have provided the same benefits in a solid waveguide, e.g. the waveguide of Windross et al., one of ordinary skill in the art would have been motivated to modify the triangular section of Windross et al. with a parabolic section of Birdseye to result in an efficient line-of-light illuminating waveguide by providing a concentrated beam of parallel rays to the first portion.

5. Regarding claims 2, Birdseye disclosed a compound conic cross-sectional shape.

6. Regarding claims 12, 14, 25 and 27, see Figures 3 and 4 of Birdseye.

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7. Regarding claims 7 and 21, the focal point is an inherent feature of the parabolic section of Birdseye.

8. Regarding claims 9 and 22, a faceted conic shape or a faceted parabolic shape is not specifically disclosed. It would have been an obvious matter of design choice to provide a faceted conic shape, since applicant has not disclosed that the faceted conic shape solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with a faceted conic shape.

9. Regarding claims 11 and 24, Birdseye discloses a flattened transmission face, but does not specifically disclose a rectilinear transmission face. One of ordinary skill in the art would have found a rectilinear transmission face to be an obvious variant of the flattened transmission face of Birdseye in order to minimize the amount of diffused light transmitted.


10. Claims 13 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Windross et al. in view of Birdseye as applied to claim 12 and 25, respectively above, and further in view of Awai et al. (U.S. Patent 4,763,984 provided by the Applicant). Neither Windross et al. nor Birdseye disclose mounting flanges at first and second angular locations. Awai et al. disclose mounting flanges 33 at first and second angular locations, which correspond to the junction between the reflective portion and the transmissive portion. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide mounting flanges at the first and second angular locations of any illuminating device since it was known in the art that mounting flanges provide a simple means for attaching any device to a support structure.


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***Conclusion***

11. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

12. Any inquiry concerning the merits of this communication should be directed to Examiner Sarah Song at telephone number 703-306-5799. Any inquiry of a general or clerical nature, or relating to the status of this application or proceeding should be directed to the receptionist at telephone number 703-308-0956 or to the technical support staff supervisor at telephone number 703-308-3072.

  
SUS  
June 28, 2003

  
HEMANG SANGHAVI  
PRIMARY EXAMINER